



The Blurb



Newsletter of The Phil-Mont Mobile Radio Club

62 Years of Public Service, 1949 to 2011

Volume 62 Number 3

www.phil-mont.org

March 2012

March brings Daylight Saving Time

And...

Spring !

But not officially until the 20th

Can Field Day be far behind?

If you've been tuning in to the digital net on Tuesday nights you don't want miss the meeting in March.

Phil-Mont Vice President Al, W3STW, will present a lecture program on FLDIGI, a collection of modems used by Amateur Radio operators on the VHF and UHF bands at this month's general meeting.

I can't wait to hear Al's enlightening words on this increasingly popular mode.

The Blurb is published monthly by and for the members of The PHIL-MONT MOBILE RADIO CLUB, Inc., whose purpose is to promote Amateur Radio in general, and Mobile Radio in particular. <i>Copying and quoting</i> is permitted with a credit line. We gladly exchange publications with other amateur radio clubs. Requests should be sent to the Editor. Subscriptions are available to non-members for \$12, addressed to the Treasurer. Editor: Rick DeVirgiliis ND3B nd3b@arrl.net 215-908-7225 Labels and mailing: KB3IV Submissions deadline: All copy must be in the hands of the Editor by the 20th of the previous month.		Directors: WU3I (12) W3MHP(12) KB3SJS(12) WA3KIO(13) N3QV(13) ND3B(13) KB3IV(A)		Contact Phil-Mont: P.O. Box 88 Abington, PA 19001 http://www.phil-mont.org Website: Eric N3QV & Andrew KC2PMW For club information: Contact any club officer, or the repeaters listed below. Address or club directory changes and articles for the membership e-mail list should be sent to: KB3IV	
		Sunday Morning Net Schedules • 2 Meter/ 70cm Net..... at 0930L on W3QV repeater • 10-on-10 Net at 1000L 28.393 MHz USB (±QRM) • 75 meter Net at 1020L 3.993 MHz LSB • ARES at 2100L on the W3QV repeater			
Committees Audit: NS3K Blurb folding: KB3IV & N3GLU Directory: KB3IV		DX: N3MT Emerg.Coor: K3HWE Field Day: KE3QB Internet: N3QV & KC2PMW Membership: N3XKE		Net Control: KB3IV Publicity: W3RM Program: Club VP Public Service: KE3QB Refreshments: W3AOK Repeater: W3AOK	
		Scholarship: W3RM Skywarn: WX3PHI Sunshine: N3GLU VE Program: NS3K Welcome: N3UBY Youth: KC2PMW			
All visitors are welcome! The club meets at 7:30 PM on the <i>second</i> non-holiday Wednesday each month except July and August at Roxborough Memorial Hospital, 5800 Ridge Avenue, Philadelphia, PA 19128 Maps and directions are available at www.phil-mont.org.					
License Examinations are held on the fourth non-holiday Thursday each month at Community Ambulance Association, 1414 E. Butler Pike, Ambler PA 19002 Registration begins at 7:00 P.M. Applicants should contact Jim McCloskey NS3K at 215-275-2979 or jmccloskey@msn.com for the latest information.					
		Club Stations W3QV/R: The Jim Spencer Memorial Repeater System Ridge & Port Royal Avenues, Philadelphia, PA Trustee: W3RM 147.03 MHz + PL 91.5 Hz 444.80 MHz + PL 186.2 Hz Reach us on EchoLink through W3QV-R W3AA Trustee: WU3I W3EM: Field Day/special event station Trustee: N3QV			
The Officers Pres: KB2ERL Bob Nicotera bnic1903@msn.com Vice Pres: W3STW Al Tribble wstw@juno.com Sec: KB3MIV Jen Miller jencaz29@gmail.com Treas: W3RM Richard A. Moll roger.mike@verizon.net Asst. Treas: N3MT Michael P. Taraborrelli michaelmt_1999@yahoo.com					

The Prez Sez ...

Well here we are at the beginning of March and it looks so far that we danced through winter pretty much unscathed. Hopefully we all got a little break from paying the gas company or oil companies their usual winter ransoms. Anyway now is the time to start planning that spring antenna project with the weather the way it's been it will be here very soon. Also get ready for the hamfest season, the big one is Timonium on march 31st so get your want list together and get out to one. This is also the time to start firming up your plans for Field Day. If you've never done one this would be a good time to start. I remember taking my first shot years ago and now wouldn't miss it for anything. It's a lot of fun with a lot of good operating. And finally try to take the time to do a public service event this year. It does a lot of good for the people you're helping, but most of all it helps keep our hobby strong. So until next month I hope you all have clear skies & clear air waves.

73, Bob KB2ERL

Phil-Mont
Birthdays & Tidbytes

March Birthdays

01 John Furlong – KC2TUT
 03 Elaine Spencer (Honorary Member)

06 Tina Furlong (XYL KC2TUT)
 Bryan Kobe - KB3WHR
 09 Fayette Toren (XYL N2MT)

13 Rosemary Canuso (XYL N2ATB)
 15 Dottie Scialdone-Maresca - K3YPH

23 Henry Platt - W3UI
 24 John Wright – K3CHR

27 William (Red) MacKenzie - W3RED
 28 Barbara Stein (XYL KB3AFH)
 Tony Canuso – N2ATB
 30 Robert H. Rose – N3TWO

Membership Stats

At press time PMRC had:

83 Full Paid Members
 8 Family Members
 4 Youth Members (under 17)
 1 Honorary Member



***There are two VE sessions this month:
 Saturday morning on the 10th and
 Thursday evening on the 22nd
 As always, many thanks to our VE team!***

From the Secretary

General meeting 2/8/12

President Bob, KB2ERL opened the meeting at 20:15 hrs. Treasurer Dick, W3RM reports the club's finances are sound and we will be funding two scholarships this year – the Haring and Silent Key scholarships for \$2,000 each.

We also have one membership application pending; the details appear in this issue of the Blurb.

Bill, W3AOK reports the repeater is working well but the Southampton site is down. Equipment is on hand to rectify this and will be installed soon.

Mark, WA3QVU visiting from Warminster Amateur Radio Club reminded us about their upcoming day trip to W1AW on March 22. Only three seats remain, get the full details at their website.

Rick, ND3B requests all Blurb submissions be sent by the 20th of the month but the deadline is flexible.

Ed, KB3IV says the nets are going well but needs more help with net control stations. Please contact him if you're available every 6-8 weeks to help out with this vital club activity.

There being no further business Ed proceeded with his informative program on Echolink.

*de Rick, ND3B
acting secretary*

The Video Amplifier Episode When Maturity & Cunning Triumphed Over Youth & Exuberance

Bob Thomas, W3NE

There comes a time at every company when a genius in upper management gets the idea that if older, experienced employees were replaced by new, young ones, business would go on as usual but payroll costs would plummet. To achieve those profitable objectives and foster development of engineering students, RCA participated with colleges in hiring engineering students for three-month intervals between classroom training. That worked well in most cases; after all, it was through

a cooperative program that I was able to work my way through Drexel thirty years earlier while learning “what’s what” in the real world before hitting the permanent job market. Our Broadcast TV department at RCA had accommodated co-op students in the past to our mutual benefit, but things were different in the situation to be described.

A new co-op showed up one morning but instead of the usual introductions and an assignment assisting an experienced engineer, this student, who we'll call Chuck, was immediately set apart from the rest of us. We were informed Chuck was brilliant and “special” – something Chuck already knew – so he was fully capable to design complex circuits on his own. We were further informed that we should leave him alone and not attempt to give any advice so we would not “pollute” him with our old ideas. To ensure that isolation Chuck was given a lab all to himself; it was a small room with a door that could be closed to ensure his privacy. Finally, because Chuck and his project were deemed so important, he had priority over everyone else in using any test gear of limited availability. Chuck's task was to design a new video line-driving amplifier with performance vastly superior to any currently available.

This is a good time to break away from the story to explain what is involved here. All TV studio equipment in analog days was interconnected with 75-ohm coaxial cable. The length of coax could be anywhere from one foot, as within an equipment rack, to several thousand feet in a large station, sports stadium, or major broadcast network. Hams know the importance of properly terminating a coax line by making the load impedance (antenna) equal to the coax impedance. When that is achieved the SWR is unity and all the transmitter power is absorbed by the antenna; none is reflected back to the transmitter. In broadcast video systems even small reflections deteriorate frequency response and cause visible echoes in the picture. Those detrimental effects are multiplied in typical TV plants where video might pass through ten or more line drivers getting from its source to its final destination. To keep video reflections at an absolute minimum, not only is the receiving-end of every coax line terminated with 75 ohms, but the sending-end, at the video source, is also terminated with a 75-ohm resistor to absorb any reflected waves coming back so they don't recirculate. Sending-end terminations are conveniently made by using feedback amplifier with extremely low output impedance to drive a 75-ohm resistor in series with the line. [Fig. 1] Reflections are then dissipated in the 75-ohm series resistor, through the near-zero amplifier impedance, to ground. The amplifier has to have a voltage gain of 2X to make up for the

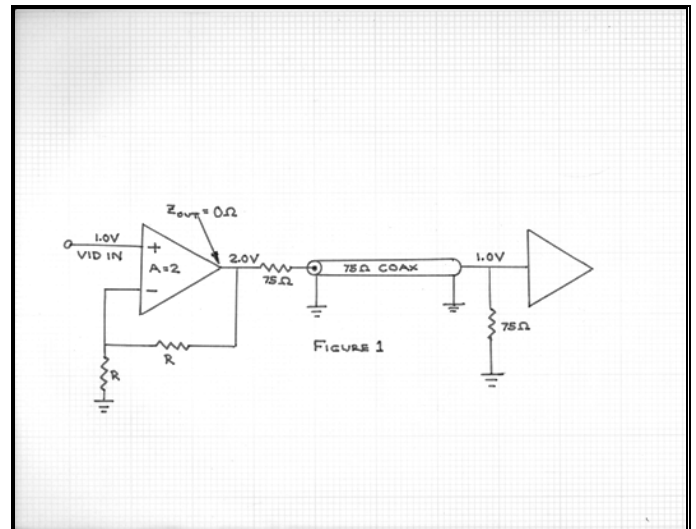
voltage drop across the sending end termination. It also must have fantastically flat frequency response, say $\pm 0.05\text{dB}$ from 10 Hz to 10 MHz, and infinitesimal amplitude and phase distortion.

Chuck was left alone in his private lab for three months to develop his confidential circuit. When he occasionally emerged with a progress report it always glowed with achievement of unheard performance, his results surpassing anything veteran engineers had previously achieved. Chuck announced that his amplifier design was completed on the final day of his three month work segment as he was about to return to school. On the afternoon of his last day I was assigned to confer with him (finally), to review the schematic and observe the amplifier's superior performance. His amplifier breadboard lay on a lab bench connected to an array of highly sophisticated German transmission test equipment. One thing that immediately caught my eye was that Chuck incorporated a Western Electric 417A exotic high gain triode in his amplifier. Department guide lines required use of RCA receiving-type tubes unless another manufacturer's tube was the only type that would fulfill a special requirement; even then the tube had to be a receiving- or industrial-type. That rule existed for two good reasons: First, receiving tubes were very inexpensive at less than a dollar each, but just as important, a customer could buy a replacement off the shelf at any neighborhood radio parts store in an emergency. In contrast, the 417A cost \$15 and was obtainable only through scarce Western Electric distributors. Chuck, of course, had immunity from observing that rule, but let's move on.

Performance measurements revealed unbelievably flat frequency response and superior amplitude and phase linearity. I was stunned by how good it was. But, being of a practical sort, I wanted to see how the amplifier handled an ordinary TV picture signal. Chuck sniffed at that, griping that test equipment results were far more sensitive than anything a visual evaluation could possibly discern. He boasted he had never bothered to look at a picture because it was crude and a waste of time. Nevertheless, I connected a still picture (Indian-head test pattern) to the input of the amplifier and a picture monitor to its output. The picture on the monitor was barely visible, indicating very low output level from the amplifier. Perplexed, I measured the amplifier input video level with a scope; it was exactly 1.0 volt. But when the scope was connected to the output of the amplifier, the level was only 0.1 volt instead of the expected 1.0 volt. Staring at the amplifier breadboard, the reason for low gain was immediately apparent. Our *wunderkind* had used a 750-ohm resistor for sending-

end termination instead of 75-ohms! Chuck's face turned red and sweat poured from his forehead with the sudden realization that from the very start, he had mistaken the violet-green-brown color code (750 ohms) on his series terminating resistor for the required violet-green-black bands of a 75-ohm resistor! No wonder the amplifier had performed so well; it was driving almost no load at all. That glaring error had escaped detection for entire the three months of effort using test equipment so sophisticated it purposely ignored signal levels while measuring frequency response and linearity. It never occurred to Chuck to check the voltage gain of his amplifier. Too bad.

Crestfallen, Chuck departed from his last day at RCA without a word to anybody. His breadboard amplifier was scrapped (after I liberated the 417A for a 2 meter converter). Supervision never mentioned the three months of wasted time, and future co-op students were no longer accorded Super Star status. Once again maturity and cunning had triumphed over youth and exuberance.



Check out this rope for your antenna project –

3/32" Braided Olive Drab - Dacron / Polyester cord

This is a high quality braided polyester cord with a breaking strength of 210 pounds. Proudly Made in the U.S.A.!

This is a gorgeous solid braid perfect for dipole antennas. Very low stretch and strong. Will withstand the weather & sun for 7 to 10 years.

***PRICE \$10.00 PER 100 FEET
SOLD IN 100 FOOT LOTS
CONTACT STEVE WU3I AT
WU3I@ARRL.NET***

FOR SALE - GREAT DEAL

Each HT below has had light use and comes with all manuals, accessories and original packaging.

-Yaesu VX-6R 144/220/440 MHz 5 watt -- If purchased new at HRO is \$289 - on sale for **\$100**

-Yaesu VX-7R Black 50/144/440 MHz dual band 5 Watt -- If purchased new at HRO \$369 - on sale for **\$200**

-Kenwood TH-F6A tri-band 144/220/440 MHz 5 watt -- If purchased new at HRO \$324 on sale for **\$175**

-Kenwood TH-D72A dual band 144/440 MHz with integrated GPS/APRS 5 watt -- If purchased new at HRO \$469 on sale for **\$220**

Again, all are in great condition. Feel free to contact me at your convenience.

Bob Rose N3TWO
email: N3TWO@arrl.net

Have you heard about D-Star?

Philadelphia Digital Radio Assn meets the first non-holiday Monday of each month at the Community Ambulance Assn 1440 East Butler Pike Ambler, Pa. 19002 at 7:00 pm.

The club has two D-star repeaters on the following frequencies: On two meters - 146.61 (-) and on 70 cm 445.18125 (-)

I run a weekly club D-star net on Mondays at 8:00 pm local time on the club 2 meter frequency.

de Jim, NS3K

**Today you are you,
that is truer than true.
There is no one alive
who is Yover than You.
-- Dr. Seuss**

These photos were taken by Ben Bernstein, W3BBB. Resized and printed in black & white here, they don't do justice to his equipment or skills. Thanks Ben!



Editor is bewildered!



Jim looks as puzzled as I am!



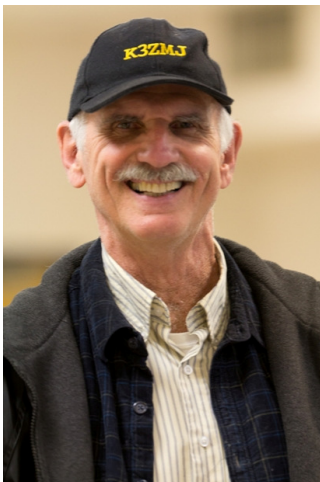
The Prez consults with a high level advisor



Meeting of the minds



Why is our ex-president smiling? Hmm...



**Another smiling member.
What's going on here??**



Dick taking notes?

March at Phil-Mont

2nd Fri Dr Seuss Birthday
 4th Sun WU3I NCS
 7th Wed Board Meeting
 8th Thur Purim
 10th Sat VE session at 09:00
 11th Sun KC3PMW NCS
 Daylight Saving Time begins
 14th Wed General Meeting
 17th Sat St. Patrick's day
 18th Sun KB3IV NCS
 20th Tue Spring!
 22nd Thur VE session
 25th Sun W3STW NCS

**Don't forget the ARES net on
 Sunday nights and the Digital net on
 Tuesday nights.**

First Class Mail

The Phil-Mont Mobile Radio Club, Inc
 1700 Street Rd. Apt. H3, Warrington PA, 18976

The Blurb